

We Claim:

1. An electro-medical device for improving synovial fluid at a body segment having a joint by applying surface electrical stimulation to the body segment.
2. The device of claim 1, wherein the electrical stimulation is at least one of transcutaneous electrical nerve stimulation, neuromuscular electrical stimulation, interferential stimulation, diadynamic stimulation, high volt galvanic stimulation, electro-magnetic field stimulation, pulsed electro-magnetic field stimulation, and micro-current stimulation.
3. The device of claim 2, wherein the interferential stimulation generates a current with a resultant beat frequency from 0-250 Hz.
4. The device of claim 2, wherein the interferential stimulation generates an alternating current with a base medium frequency of at least 1 KHz but no more than 20 KHz.
5. The device of claim 1, wherein the electrical stimulation imparts to the body segment at the joint.
6. The device of claim 1, wherein the electrical stimulation is applied continuously.
7. The device of claim 6, wherein the electrical stimulation is within a range from 0.1 mA to 150 mA as rated into a 500 ohm load.

8. The device of claim 1, wherein characteristics and sequencing of the electrical stimulation to the body segment mimics normal electrical sequencing of surrounding muscles of the joint during normal functioning activity.
9. The device of claim 8, wherein the electrical stimulation is within a range from 5 mA to 150 mA as rated into a 500 ohm load.
10. The device of claim 1, wherein the electrical stimulation includes a duration from 10 minutes to 4 hours per day.
11. A method of improving synovial fluid in a body segment having a joint comprising applying electrical stimulation using surface skin electrodes to the body segment.
12. The method of claim 11, wherein the electrical stimulation is at least one of transcutaneous electrical nerve stimulation, neuromuscular electrical stimulation, interferential stimulation, diadynamic stimulation, high volt galvanic stimulation, electro-magnetic field stimulation
13. The method of claim 12, comprising generating an interferential current with a resultant beat frequency of at least 1 KHz but no more than 20 KHz.
14. The method of claim 11, further comprising imparting the electrical stimulation to the body segment at the joint.
15. The method of claim 11, further comprising applying the electrical stimulation continuously.

16. The method of claim 15, wherein the electrical stimulation is within a range from 0.1 mA to 150 mA as rated into a 500 ohm load.

17. The method of claim 11, further comprising sequencing the electrical stimulation to the body segment to mimic normal electrical sequencing of surrounding muscles of the joint during normal functioning activity.

18. The method of claim 17, wherein the electrical stimulation is within a range from 5 mA to 150 mA as rated into a 500 ohm load.

19. The method of claim 11, wherein the electrical stimulation includes a duration from 10 minutes to 4 hours per day.

20. An electro-medical device for delaying onset of arthritis at a body segment having a joint by applying surface electrical stimulation using surface skin electrodes to the body segment.

21. The device of claim 20, wherein the electrical stimulation is at least one of transcutaneous electrical nerve stimulation, neuromuscular electrical stimulation, interferential stimulation, diadynamic stimulation, high volt galvanic stimulation, electro-magnetic field stimulation, pulsed electro-magnetic field stimulation, and micro-current stimulation.

22. The device of claim 20, wherein the interferential stimulation generates a current with a resultant beat frequency from 0-250 Hz.

23. The device of claim 22, wherein the interferential stimulation generates an alternating current with a base medium frequency of at least 1 KHz but no more than 20 KHz.

24. The device of claim 20, wherein the electrical stimulation imparts to the body segment at the joint.

25. The device of claim 20, wherein the electrical stimulation is applied continuously.

26. The device of claim 25, wherein the electrical stimulation is within a range from 0.1 mA to 150 mA as rated into a 500 ohm load.

27. The device of claim 20, wherein characteristics and sequencing of the electrical stimulation to the body segment mimics normal electrical sequencing of surrounding muscles of the joint during normal functioning activity.

28. The device of claim 27, wherein the electrical stimulation is within a range from 5 mA to 150 mA as rated into a 500 ohm load.

29. The device of claim 20, wherein the electrical stimulation includes a duration from 10 minutes to 4 hours per day.

30. A method of treating arthritis in a body segment having a joint comprising applying electrical stimulation to the body segment.

31. The method of claim 30, wherein the electrical stimulation is at least one of transcutaneous electrical nerve stimulation, neuromuscular electrical stimulation,

interferential stimulation, diadynamic stimulation, high volt galvanic stimulation, electro-magnetic field stimulation

32. The method of claim 30, comprising generating an interferential current with a resultant beat frequency of at least 1 KHz but no more than 20 KHz.

33. The method of claim 30, further comprising imparting the electrical stimulation to the body segment at the joint.

34. The method of claim 30, further comprising applying the electrical stimulation continuously.

35. The method of claim 34, wherein the electrical stimulation is within a range from 0.1 mA to 150 mA as rated into a 500 ohm load.

36. The method of claim 30, further comprising sequencing the electrical stimulation to the body segment to mimic normal electrical sequencing of surrounding muscles of the joint during normal functioning activity.

37. The method of claim 36, wherein the electrical stimulation is within a range from 5 mA to 150 mA as rated into a 500 ohm load.

38. The method of claim 30, wherein the electrical stimulation includes a duration from 10 minutes to 4 hours per day.